Amendments to the Claims:

Please amend claim 2 as follows. This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claim 1. (Previously Canceled).

Claim 2. (Currently Amended) An apparatus for adaptively detecting a receiving signal for power line communication, comprising:

a main control unit (MCU) interface unit for adjusting a timing of data transmission;

a register unit for storing control data, a threshold value, an offset value, and an error rate received from said MCU interface unit, and for outputting the stored data and values;

a control logic unit for controlling a selection of [[a]] threshold ~~value~~ values, based on the control data stored in said register unit;

a reference data selecting unit for selectively outputting, as <u>said</u> threshold values, the threshold value and offset value respectively stored in said register unit or an external threshold value and an external offset value, under control of said control logic unit; and

a data processing unit for determining, based on <u>said</u> threshold values ~~to be~~ selectively outputted by said reference data selecting unit, whether or not serial data received via a power line is valid data, and for outputting the ~~receiving~~ <u>received</u> data;

wherein the data processing unit comprises:

a data shift unit for shifting the serial data received via the power line, thereby outputting the data in parallel;

a comparing unit for comparing the output signal from said data shift unit with the offset value <u>when the reference data selecting unit selectively outputs, the threshold value and the offset value, as said threshold values</u> ~~selectively outputted from said reference data selecting unit~~;

a first compressing unit for compressing an output signal from said comparing unit;

a second compressing unit for re-compressing an output signal from said first compressing

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unit;

a summing unit for summing output signals from said second compressing unit; and

a determining unit for comparing an output signal value from said summing unit with the threshold value when the reference data selecting unit selectively outputs, the threshold value and the offset value, as said threshold values ~~selectively outputted from said reference data selecting unit~~, thereby determining whether or not the output signal value from the summing unit is valid data, and for transmitting the determined value to the MCU.

Claim 3. (Previously Canceled).

Claim 4. (Previously Amended) A method for adaptively detecting a receiving signal for power line communication, comprising the steps of:

(a) receiving control data, a threshold value, an offset value, and an error rate from a main control unit (MCU), storing the received data and values, and then waiting for receiving serial data via a power line;

(b) if serial data is received at said step (a), then determining, based on the threshold value and offset value, whether or not the serial receiving data is valid data;

(c) if it is determined at said step (b) that the serial receiving data is valid data, then outputting a determination value of valid data;

(d) if it is determined at said step (b) that the serial receiving data is invalid data, then incrementing a number of errors; and

(e) if the number of errors incremented at said step (d) is not less than a predetermined allowance value, re-setting the threshold value and offset value as a new threshold value and a new offset value;

wherein said step (b) comprises the steps of:

(b-1) converting the serial receiving data into parallel data, and then comparing the parallel data with said offset value;

(b-2) compressing signals obtained after the comparison at said step (b-1), and summing the compressed signals; and

(b-3) comparing the signal obtained after the summing at said step (b-2) with the threshold value, thereby determining whether or not the serial receiving data is valid data.